PHP LAB RECORD (2017 admission)

1. Write a script to find area of a circle

```
echo "Enter the radious"
read r
echo $r
echo "Area of the Circle is"
echo "3.14 * $r * $r" | bc
```

2. Write a shell script to find given number is even or odd

```
echo "Enter a number : "
read n

rem=$(( $n % 2 ))

if [ $rem -eq 0 ]
then
echo "$n is even number"
else
echo "$n is odd number"
fi
```

3. Write a shell script to make a menu driven calculator using case

```
sum=0
i="y"
echo " Enter one no."
read n1
echo "Enter second no."
read n2

while [ $i = "y" ]
do
echo "1.Addition"
echo "2.Subtraction"
echo "3.Multiplication"
echo "4.Division"
echo "Enter your choice"
read ch

case $ch in
  1)sum=`expr $n1 + $n2`
    echo "Sum = "$sum;;
    2)sum=`expr $n1 - $n2`
    echo "Sub = "$sum;;
    3)sum=`expr $n1 \* $n2`
     echo "Mul = "$sum;;
    4)sum=`expr $n1 / $n2`
     echo "Div = "$sum;;
     *)echo "Invalid choice";;
esac

echo "Do u want to continue ?"
read i
if [ $i != "y" ]
then
    exit
fi
done
```

4. Write a shell script to find the greatest of three numbers

```
echo "Enter three Integers:"
read a b c

if [ $a -gt $b -a $a -gt $c ]
then
echo "$a is Greatest"
elif [ $b -gt $c -a $b -gt $a ]
then
echo "$b is Greatest"
else
echo "$c is Greatest!"
fi
```

5. Write a shell script to compute mean and standard deviation of three numbers

```
echo Enter three integers with space between
read a b c
sum=`expr $a + $b + $c`
echo Sum=$sum
```

6. Write a shell script to find sum of all digits from a given number

```
echo "Enter a Number:"
read n

temp=$n
sd=0
sum=0

while [ $n -gt 0 ]
    do
            sd=$(( $n % 10 ))
            n=$(( $n / 10 ))
            sum=$(( $sum + $sd ))
    done
echo "Sum is $sum"
```

7. Write a shell script to find reverse of a number

```
echo "Enter a Number:"
read a

rev=0
sd=0
or=$a

while [ $a -gt 0 ]
do
sd=`expr $a % 10`
temp=`expr $rev \* 10`
rev=`expr $temp + $sd`
    a=`expr $a / 10`
done

echo "Reverse of $or is $rev"
```

8. Write a shell script to find prime numbers up to a given number

```
read -p "How many prime numbers ?: " num

c=0
k=0
n=2

echo 1
numero=${$num-1]

while [ $k -ne $num ]; do
for i in `seq 1 $n`;do
        r=$(($n%$i]
if [ $r -eq 0 ]; then
                c=${$c+1]
fi
done

if [ $c -eq 2 ]; then
echo "$i"
            k=${$k+1]
fi
    n=${$n+1]
    c=0
done
```

9. Write a shell script to find n Fibonacci numbers

```
echo "How many numbers do you want of Fibonacci series ?"
read total
  x=0
  y=1
  i=2
echo "Fibonacci Series up to $total terms :: "
echo "$x"
echo "$y"
while [ "$i" -lt $total ]
do
  i=`expr $i + 1 `
  z=`expr $x + $y `
echo "$z"
  x=$y
  y=$z
done
```

10. Write a shell script to check whether a given number is Armstrong or not

```
echo "Enter a number: "
read c
x=$c
sum=0
r=0
n=0
while [ $x -gt 0 ]
do
        r=`expr $x % 10`
        n=`expr $r \* $r \* $r`
        sum=`expr $sum + $n`
        x=`expr $x / 10`
done

if [ $sum -eq $c ]
then
        echo "It is an Armstrong Number."
else
        echo "It is not an Armstrong Number."
fi
```

11. Write a shell script to reverse a string and check whether a given string is palindrome or not

```
echo Enter the string
read s
echo $s > temp
rvs=`$(rev temp)"
if [ $s = $rvs ]
then
    echo "it is palindrome"
else
    echo " it is not a Palindrome"
fi
```

12. Write a shell script to count no of line, words and characters of a input file

```
echo Enter the filename
read file
w=`cat $file | wc -w`
c=`cat $file | wc -c`
l=`grep -c "" $file`
echo Number of characters in $file is $c
echo Number of words in $file is $w
echo Number of lines in $file is $l
```

13. Code for Write a shell program to convert all the contents into the uppercase in a particular file in Unix

```
echo Enter the filename
read filename
echo Contents of $filename before converting to uppercase
cat $filename

echo Contents of $filename after converting to uppercase
tr [a-z]"[A-Z]" < $filename
```

14. Write a script to find the value of one number raised to the power of another. Twonumbers are entered through the keyboard.

```
echo "Input number"
read no
echo "Input power"
read power

counter=0
ans=1
while [ $power -ne $counter ]
do
ans=`expr $ans \* $no`
counter=`expr $counter + 1`
done

echo "$no power of $power is $ans"
```

15. Write a shell script find the factorial of a given number

```
echo "Enter a number"
readnum

fact=1

while [ $num -gt 1 ]
do
fact=$((fact * num))
num=$(num - 1))
done

echo $fact
```

16. An employee Basic salary is input through keyboard where da is 40% of basic salary andHRA is 20% of basicsalary. Write a program to calculate gross salary

```
echo "enter the bassic salary:"
readbsal
gsal=$((bsal+((bsal/100)*40)+(bsal/100)*20))
echo "The gross salary : $gsal"
```

17. Write a shell script to find the average of the number entered as command line arguments

```
sum=0
for i in $*
do
sum=`expr $sum + $i`
done
echo "Summation of "$#" no. is: "$sum
avg=`expr $sum / $#`
echo Average=$avg
```

18. Code for Shell script which whenever gets executed displays the message GoodMorning/Good afternoon /Good Evening depending on the time it get executed

```
check=`date +%H`
echo $check
if [ $check -ge 06 -a $check -le 12 ]
then
echo "Good morning"
elif [ $check -ge 12 -a $check -le 16 ]
then
echo "Good afternoon"
else
echo "Good evening"
fi
```

19. Write a shell script to Display Banner, calendar of given year

```
cal

cal 2019

cal 07 2018

cal -3
```

20. Code for a program to display current date and time, number of users, terminal name, login date and time

```
choice=0
while [ $choice -ne 4 ]
do
        tput clear
        echo "1. Today date and time"
        echo "2. Total login user"
        echo "3. My detail"
        echo "4. Exit"
        echo "Enter your choice"
        read choice
if [ $choice -eq 1 ]
then
        echo "Today is `date +%B` date | cut -f 3 -d "", `date | cut -f 6 -d ""`"
        echo " and current time is `date | cut -f 4 -d ""`"
elif [ $choice -eq 2 ]
then
        echo "And now `who | wc -l` user are login to the system"
elif [ $choice -eq 3 ]
then
        echo "My details :--------"
        echo "user name : `who i am | cut -f 1 -d ""`"
        echo "Terminal name: `who i am | cut -f 4 -d ""`"
        echo "Login date : `who i am | cut -f 12-13, -d ""`"
        echo "Login time : `who i am | cut -f 14 -d ""`"
fi
echo "Are you continue (1 for yes/0 for n)"
read temp
if [ $temp -eq 0 ]
then
        choice=4

fi
done
```

21. Write a shell script which uses all the file test operators

```
file="/home/cslab/Desktop/xs.txt"
if [ -r $file ]
then
        echo "File has read access"
else
        echo "File does not have read access"
fi
if [ -w $file ]
then
        echo "File has write permission"
else
        echo "File does not have write permission"
fi
if [ -x $file ]
then
        echo "File has execute permission"
else
        echo "File does not have execute permission"
fi
if [ -f $file ]
then
        echo "File is an ordinary file"
else
        echo "This is sepcial file"
fi
if [ -d $file ]
then
        echo "File is a directory"
else
        echo "This is not a directory"
fi
if [ -s $file ]
then
        echo "File size is not zero"
else
        echo "File size is zero"
fi
if [ -e $file ]
then
        echo "File exists"
else
        echo "File does not exist"
fi
```

22. Write a shell script to copy the contents of file to another. Input file names throughcommand line. The copy should not be allowed if second file exists.

```
echo -n "Enter soruce file name : "
readsrc
echo -n "Enter target file name : "
readtarg

if [ ! -f $src ]
then
    exit
fi
done
```

23. Write a shell script to find number of vowels, consonants, numbers in a given string.

```
echo "Enter a line of text:: "
read string

numCount=$(echo $string | grep -o "[0-9]" | wc --lines)
vowCount=$(echo $string | grep -o -i "[aeiou]" | wc --lines)
consCount=$(echo $string | grep -o -i "[bcdfghklmnpqrstvwxyz]" | wc --lines)

echo "The given string has $vowCount vowels, $consCount consonants and $numCount numbers in it."
```

24. Code for Shell script to perform operations like display, list, make directory and copy, rename, delete

```
clear
i="y"while [ $i = "y" ]
do
        echo "1.Display current dir"
        echo "2.Listing the dir"
        echo "3.Make a dir"
        echo "4.Copy a file"
        echo "5.Rename file"
        echo "6.Delete file"
        echo "7.Edit file"
        echo "8.Exit"
        echo "Enter your choice"
        read ch
case $ch in
1)echo "Current Dir is : "
  pwd;;
2)echo "Directories are"
  ls;;
3)echo "Enter dir name to create"
    read d
   mkdir $d
    echo $d" Dir is created";;
4)echo "Enter filename from copy"
   read f1
   echo "Enter filenm2 to be copied"
   read f2
   #cat $f1 > $f2
   cp $f1 $f2
    echo $f2" is copied from "$f1;;
5)echo "Enter file name to rename"
    read f1
    echo "Enter new name of file"
    read f2
    mv $f1 $f2
    echo $f1" is renamed as "$f2;;
6)echo "Enter any filenm to be delete"
    read f1
    rm $f1
    echo $f1" is deleted";;
7)echo "Enter any file to be editing "
    read f1
    vi $f1;;
8)echo "Have a nice time"
    exit;;
*)echo "Invalid choice entered";;
    esac
    echo "Do u want to continue ? "
    read i
if [ $i != "y" ]
then
   exit
fi
done
```

25. Write a shell script to compare two files and remove one of them if they are same

```
echo "Enter first file name "
read file1
echo "Enter second file name "
read file2
cmp $file1 $file2 > error

total=`wc -c error \| cut -f 7 -d " "`
echo $total

if [ $total -eq 0 ]
then
    echo "Both file's contents are same"else
    echo "Both file's contents are not same"
fi
```